**A brief about the prototype:**

I am going to create a website for year 12 Biology students to visits and gather information about their standards throughout the year and improve their learning capability. My client that use this website will be Dr Tyrell, my current Biology teacher at Kaikorai Valley College. She wants to have a biology website for the student to do homework and assignment on, and a replacement her current Google Classroom. The reason of potentially replacing her current Google Classroom is because if she wants to change certain features on the website, like changing the background or adding more page for the site, it's limited by Google. There are also features on the site she doesn't typically like, but can't change it. She had a look at science websites made from science teachers from other schools and would like to have one, but unlikely to create one herself as she's quite busy. With the website that I'm making, it will allow my client to change the background depends on the topic that she's teaching. It will have multiple pages, each represents a way for students to study biology. The website will have a home page and about page, with one page representing YouTube channels that teaches biology, one page will be about biology games that students can use to test their understanding of the subject, and another page features information about standards that students will study throughout the year. The website should be able to provide additional information that students would find useful when they access it, but easy for both my client and for students to navigate.

Wireframes:

To make it easy for my website planning, I had found and used a software called Balsamiq Mockups 3 which is a software that allows me to design sketches for some of my website's basic pages. Balsamiq is good for wireframing as the software contain many features that's come in handy only when I need it, like browser windows, so I can design what's need on my website and what's not. So, after talking with my client, she had agreed on the basic layout of the website I'm working on. My client wants the top of each page allocated for the title of the page. This also will be the place where the background of the website can be seen clearly. Right below it is the body of the page, where information about the website like requirements in unit or achievement standard is located. Then lastly, at the bottom of any page will have the footer, which will contain my name and year when I created the website.
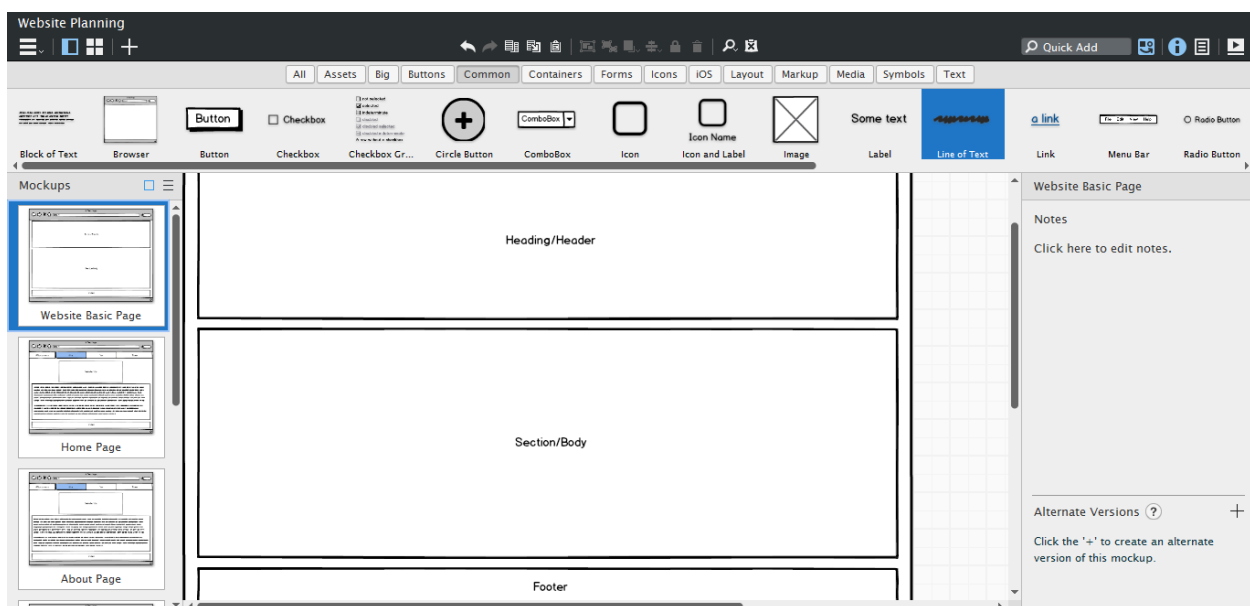
Then I work on the design the basic layout of my home page, which has a navigation bar at the top so that students would go on different pages of the website. A big section below the navigation bar is where the title name for the site is located. I discussed it with my client and she said all the page should have the same title about the website. The title though won't take up a lot of space horizontally because the background of the website will be visible the most there. Below the title will be the body of the page, where most of the page content will be. The home page will basically have some paragraph explaining about biology before welcoming someone into the website. My client wants the background at the body of the page to stay white as images from the background when integrated might distract students from doing their work. The about page following will most likely be the same as the home page, with just different contents than more about explaining what this website is about.
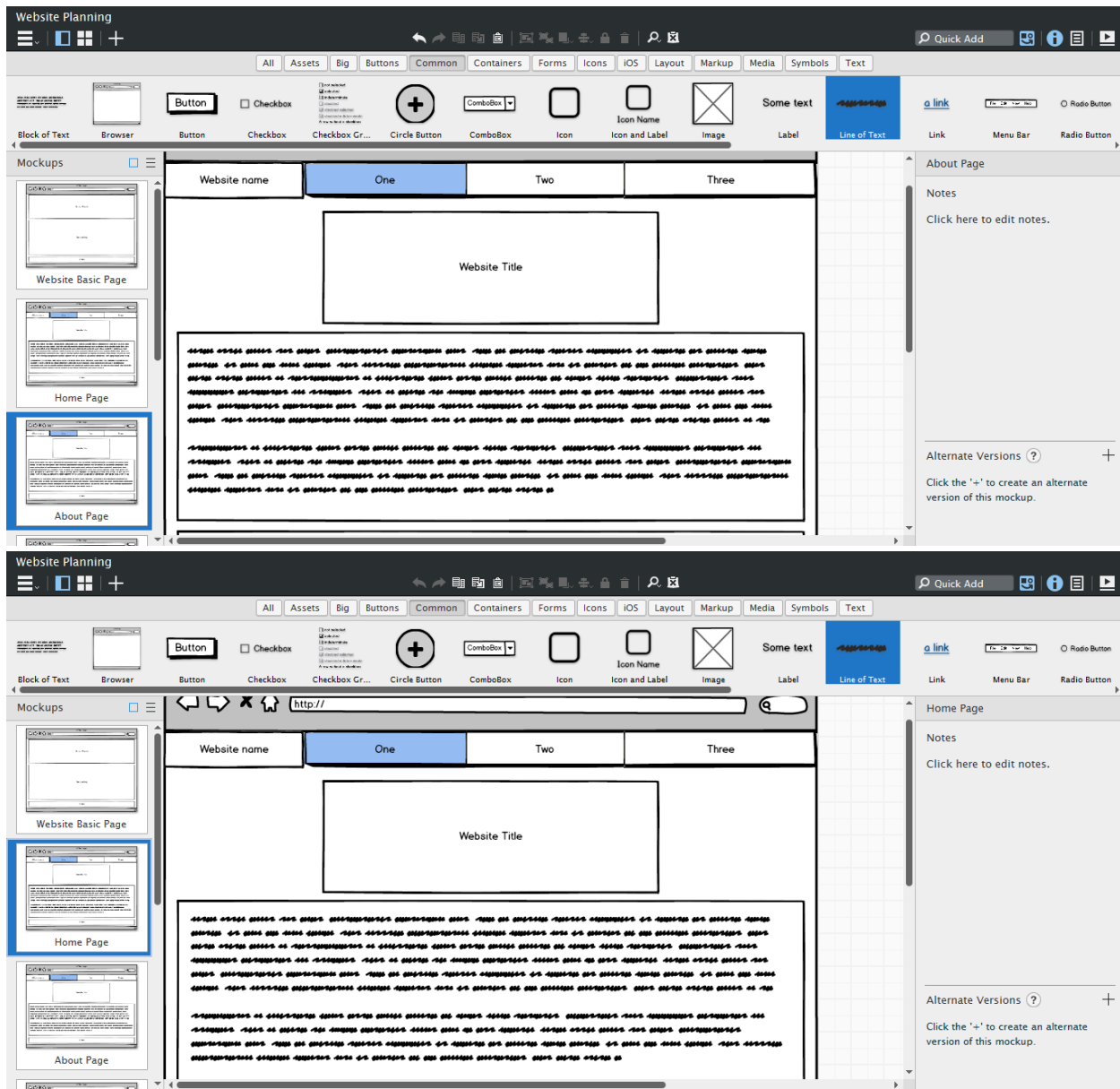
With the standards, information page or a page in the website that features information about unit or achievement standards that student is going to take during the year, those features that would be the same are the navigation bar, the website name and maybe its logo, and the title of the page. On the left side of the body, the page will be a list of buttons that students can use to change between different standards. My client doesn't want the navigation bar on the top of being full of options of just standards, but with main options of navigating between pages. The next page will be dedicated to biology games and information about those games. The body of the page will be divided into big sections that will have images with links to each gaming website, and then a short paragraph on the side explaining what activities that each of them can offer.
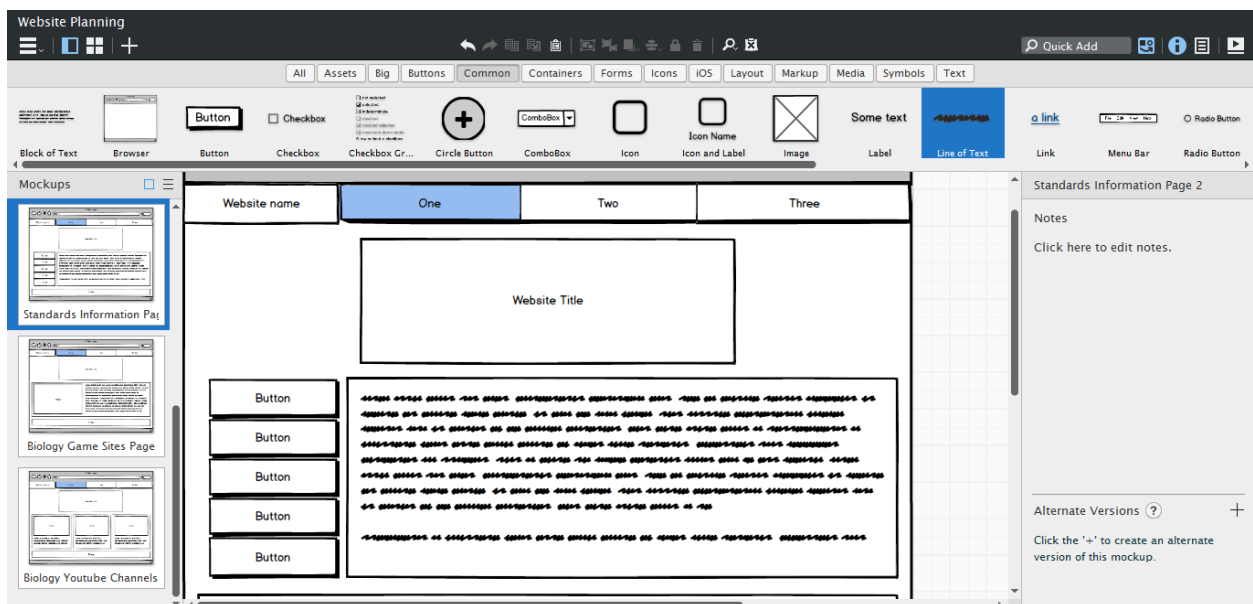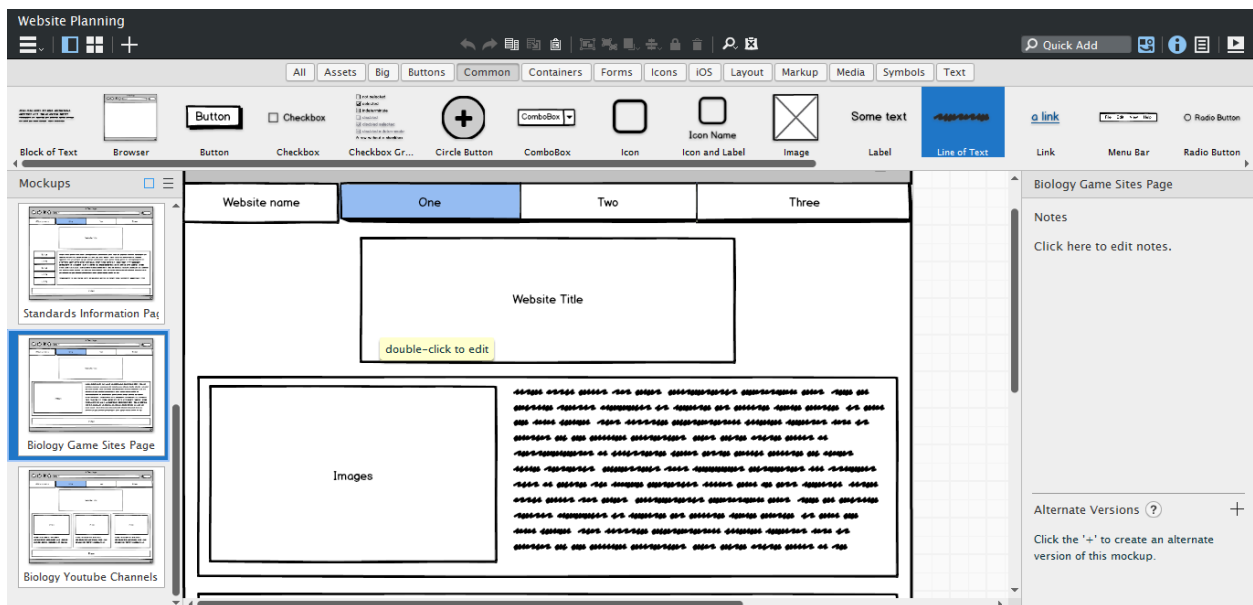
The last page will be about YouTube channels and their videos about biology. The body of the page will also be divided into three big columns, and each of them will contain one video example from each channel, with a short paragraph underneath to explain each channel and how they work.
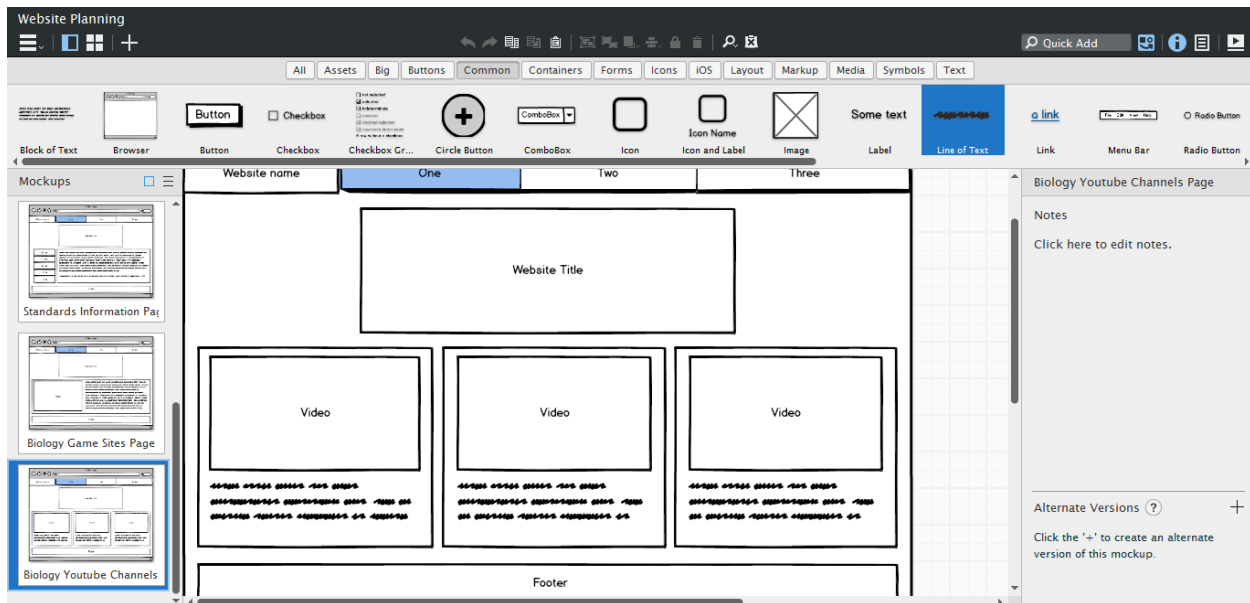
Website research:

This is a Study Guide and Strategies site. From the first look, the colour isn't the most appealing for its dark red background that surrounding on either side of the page and at the header as well. This makes the page look outdated, and since the page has been created quite a long time ago, no one seems to have renovated it for a new look.
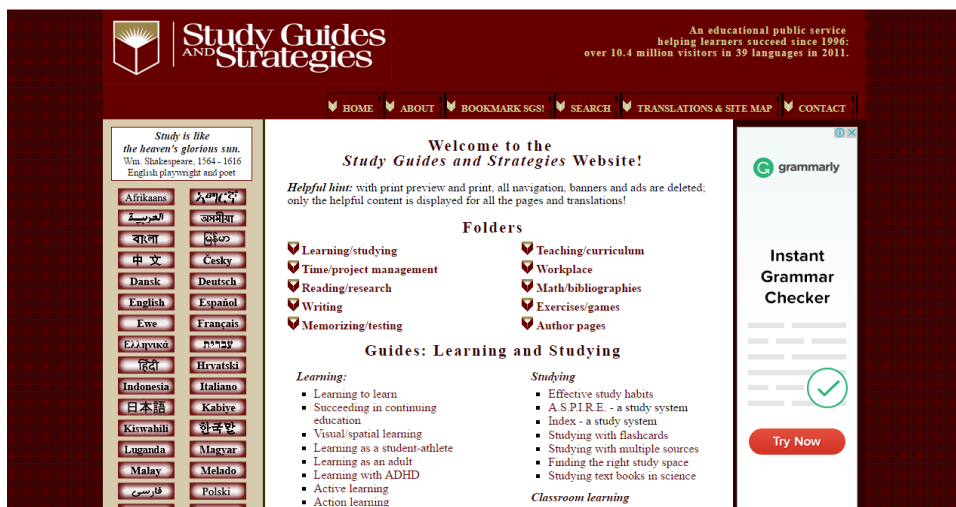
In my opinion, since this site is focused on students with or without a foreign language, the background colour should be lighter and fresh, so that people spent a lot of time visiting will feel less irritated than the more serious red colour. Also, more colour should be applied to the site for a more attractive look, like silver or gainsboro.

The menu bar is alright, but they should have a more modern look. A responsive menu bar might solve it. One of the problems with the navigation bar on the left side is having too many options. It's hard for people to grab on the information when there are too many. They also

- Reading fiction
- Narrator and character types
- Speed and comprehension

Guides: Math and science

Math
- Math tests
- Solving linear equations
- Solving math word problems
- Word problems, exercise I
- Word problems, exercise II
- Word problems, exercise III
- Evaluating algebraic expressions
- P.E.M.D.A.S.: 2nd exercise
- P.E.M.D.A.S.: 3rd exercise
- Creating and developing spreadsheets
- Sudoku 数独

Science and technology
- Following the scientific method
- Studying text books in science
- Writing lab reports and scientific papers
- How to write a research proposal
- Writing white papers
- Lab safety

❦ **Website overview:** Since 1996 the Study Guides and Strategies Website has been researched, authored, maintained and supported as an international, learner-centric, educational public service. Permission is granted to freely copy, adapt, and distribute individual Study Guides in print format in non-commercial educational settings that benefit learners. Please be aware that the Guides welcome, and are under, continuous review and revision. For that reason, digitization and reproduction of all content on the Internet can only be with permission through a licensed agreement. Linking to the Guides is encouraged!

❦ The *Study Guides and Strategies* Website is intended for students, ages middle school through returning adult, as well as their parents, teachers and support professionals. Its resources are intended to empower all learners without regard to institutional and national boundaries; cultural mores and religious beliefs, race, gender and sexual orientation. Full disclaimer on use

might get annoyed by this navigation bar, because people probably only select one of the languages for once, but must see it repeatedly. So, the choice to have people seeing this should be optional. So, having one of the navigation like 'Language', then have a drop-down menu of all the language choice, will be much easier for users when they visit.

Most of the font on the page seem to be Times New Roman and Arial font and they are easy to read and sorted into place with bullet points. But Times New Roman should only be suitable for paragraphs or level 4 heading and lower. A more suitable heading font for the site might be Harabara or Media Gothic. For optional, change the paragraph font into Droid Sans or Consolas for a more appealing look.

This website doesn't have any images in place except for ads. In my opinion, they should have images for this website. If images of people studying and other things related to education are applied to the site, there are two reasons why people will be more likely to stay at the site for longer and even return to it. First, images will grab people's attention, which will make them stay at the site for longer. And second, suitable images with a modern design will grab people's attention because they are more likely to look for a new and reliable website.

The site has the black red background.

Links for site

Links for the main page

Links for choosing the suitable language

Links for study guides

Study Guides and Strategies

An educational... ...help learners succe... over 10.4 million visitors in 39 lan...

| HOME | ABOUT | BOOKMARK SGS! | SEARCH | TRANSLATIONS & SITE MA... |

Study is like the heaven's glorious sun.
Wm. Shakespeare, 1564 - 1616
English playwright and poet

Afrikaans	አማርኛ
বাংলা	অসমীয়া
বাংলা	ქართ
中 文	Česky
Dansk	Deutsch
English	Español
Ewe	Français
Ελληνικά	עברית
हिंदी	Hrvatski
Indonesia	Italiano
日本語	Kabiye
Kiswahili	한국말
Luganda	Magyar
Malay	Melado
فارسی	Polski
Português	Русский
Romana	Српски
Svenska	پنجابی
Türkçe	Tiếng Việt

Welcome to the Study Guides and Strategies Website!

Helpful hint: with print preview and print, all navigation, banners and ads are deleted; only the helpful content is displayed for all the pages and translations!

Folders

- Learning/studying
- Time/project management
- Reading/research
- Writing
- Memorizing/testing

- Teaching/curriculum
- Workplace
- Math/bibliographies
- Exercises/games
- Author pages

Guides: Learning and Studying

Learning:
- Learning to learn
- Succeeding in continuing education
- Visual/spatial learning
- Learning as a student-athlete
- Learning as an adult
- Learning with ADHD
- Active learning
- Action learning
- Language learning strategies
- Exploring your personal learning style

Learning with others:
- Collaborative learning
- Group projects
- Active Listening
- Conflict resolution
- Case study: conflict resolution
- Peer mediation
- Tutoring guidelines
- Using feedback with tutors

Studying
- Effective study habits
- A.S.P.I.R.E. - a study system
- Index - a study system
- Studying with flashcards
- Studying with multiple sources
- Finding the right study space
- Studying text books in science

Classroom learning
- Preparing for the classroom
- Class "prep"/paying attention
- Classroom discussions
- Taking notes in lectures
- Influencing teachers
- Interviewing for class projects
- Consent form for interviews
- Problem based learning
- Using guided notes

Study guides folder menus

Time, stress and project management;
Problem solving

Math
- Math tests
- Solving linear equations
- Solving math word problems
- Word problems, exercise I
- Word problems, exercise II
- Word problems, exercise III
- Evaluating algebraic expressions
- P.E.M.D.A.S.: 2nd exercise
- P.E.M.D.A.S.: 3rd exercise
- Creating and developing spreadsheets
- Sudoku 数独

Science and technology
- Following the scientific method
- Studying text books in science
- Writing lab reports and scientific papers
- How to write a research proposal
- Writing white papers
- Lab safety

Links for study guides

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Paragraph about the site's information

Font Development:

Body Text Samples (tool credit: http://www.typetester.org/)

Arial	Comic Sans MS	Georgia
The quick brown fox jumps over the lazy dog. Foxy parsons quiz and cajole the lovably dim wiki-girl.	The quick brown fox jumps over the lazy dog. Foxy parsons quiz and cajole the lovably dim wiki-girl.	The quick brown fox jumps over the lazy dog. Foxy parsons quiz and cajole the lovably dim wiki-girl.

Impact	Times New Roman	Palatino Linotype
The quick brown fox jumps over the lazy dog. Foxy parsons quiz and cajole the lovably dim wiki-girl.	The quick brown fox jumps over the lazy dog. Foxy parsons quiz and cajole the lovably dim wiki-girl.	The quick brown fox jumps over the lazy dog. Foxy parsons quiz and cajole the lovably dim wiki-girl.

Tahoma	Didot	Georgia
The quick brown fox jumps over the lazy dog. Foxy parsons quiz and cajole the lovably dim wiki-girl.	The quick brown fox jumps over the lazy dog. Foxy parsons quiz and cajole the lovably dim wiki-girl.	The quick brown fox jumps over the lazy dog. Foxy parsons quiz and cajole the lovably dim wiki-girl.

Client feedback: The body text in the website can be Arial, but it wouldn't look that great when implemented into titles are heading as it plain and not very attracting. Comic Sans MS is kind of a playful and funny font and is often used for comic books, not always for the body text. Georgia is like Verdana in size and stature. It might attract people due to a familiar font that people saw in books and documents every day.

The impact is another bold headline choice that looks great in a few short words but looks bad in a sentence or longer. It's the font that my client doesn't like the most and wouldn't want it to be implemented. Times New Roman are some of the classic fonts out there, it would be fine to use. However, Times New Roman is often used in articles, newspapers and books and was consider an old font from my client. So, to have the website look more professional, Times New Roman isn't included.

Palatino Linotype is ideal for use in extended text settings such as books, periodicals and catalogues. Not a font that my client looks for in a biology website, but it still in consideration. Tahoma font is nearly exactly same as Arial. Didot is a font that often used in magazines, so to have the font as the body text it wouldn't be easy to read. My client chooses Tahoma because of its clean, modern look, plus it's also a popular font among websites on the internet.

Sub Heading Samples:

Georgia 17, bold	Georgia 17, regular
Heading The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.	Heading The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.

Tahoma 17, bold	Tahoma 17, regular
Heading The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.	Heading The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.

Impact 17, bold	Impact 17, regular
Heading The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.	Heading The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.

Client Feedback: My client prefers Tahoma 17, bold for the subheading as it's clear and visible when looking at it, while keeping the professional look, but not having each letter tightly fit together. The subheading Tahoma will go with the Tahoma body text.
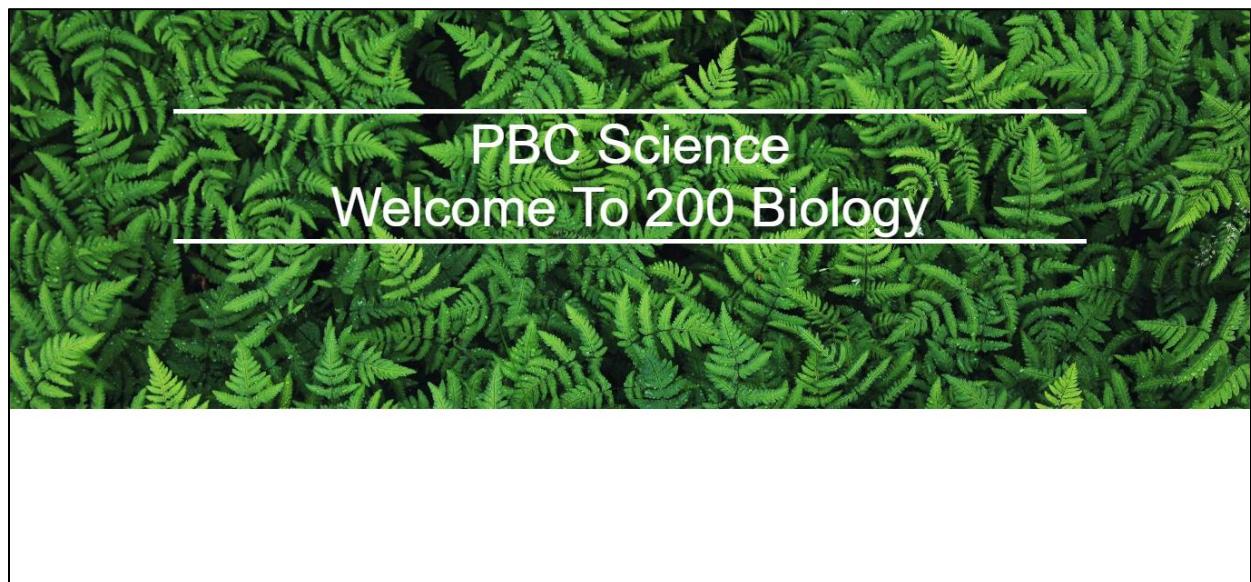
Main Heading Samples:

Heading	Feedback
Sample Heading	My client finds the Verdana bold will stand out too much for the rest of the page and can distract users. It should be used for words that are needed to be emphasized.

Sample Heading	Radley font have the Times New Roman-like look for it and that what my client wants to avoid for website heading
Sample Heading	My client typically like this Verdana normal font because it's thin and easy to read, even if it zoomed out a bit further.
Sample Heading	The same feedback as for the Verdana Bold.

Conclusion: For both the body text and subheading, I will use Tahoma, and for the main heading, I will use Verdana normal.

Website Development:

The first approach on the website is set up the background behind the title for the home page. The background features ferns, with related to the topic that I take this year, so I think it would suit the website style, which is focused on plants and animals. After talking with my client, she accepts my idea and it was implemented into the website. The snapshots below represent the look of the website when I first started, with the html page and the Css page showing the html codes used for the website. The software that I used to code for the website is Brackets. This is a modern text editor software that I used to make the website. Brackets help me design the website quick and easy, while also helping me fix and learn mistake that I make, or suggest what I should do for certain section of code.

```
1    <!doctype html>
2  ▼ <html>
3  ▼     <head>
4              <meta charset="asmo-708">
5              <meta name="viewport" content="width=device-width, initial-scale=1" />
6              <title>Biology Study Guide</title>
7              <link href="style.css" rel="stylesheet" type="text/css">
8          </head>
9  ▼     <body>
10             <div id="main">
11             </div>
12 ▼         <div id="title">
13                 <h1>PBC Science<br>Welcome To 200 Biology</h1>
14             </div>
15         </body>
16     </html>
```

Line 16, Column 8 — 16 Lines   INS   UTF-8 ▾   HTML ▾   ◯   Spaces: 4

```
1    @charset "asmo-708";
2    /* CSS Document */
3  ▼ * {
4          padding: 0;
5          margin: 0;
6    }
7
8  ▼ #main {
9          background: url(leafy-green-ferns-wallpaper.jpg) no-repeat;
10         background-size: cover;
11         padding:20px 0;
12         width: 100%;
13         margin:0 auto;
14         height: 400px;
15   }
16
17 ▼ #title h1 {
18         font-family: Vardana, Geneva, arial, sans-serif;
19         font-size: 60px;
20         color: white;
21         font-weight: 400;
22         position: relative;
23         text-align: center;
24         border-top-color: white;
25         border-top-width: 5px;
26         border-top-style: solid;
27         border-bottom-color: white;
28         border-bottom-width: 5px;
29         border-bottom-style: solid;
30         margin-left: 180px;
31         margin-right: 180px;
32         margin-top: -330px;
33   }
34   |
```

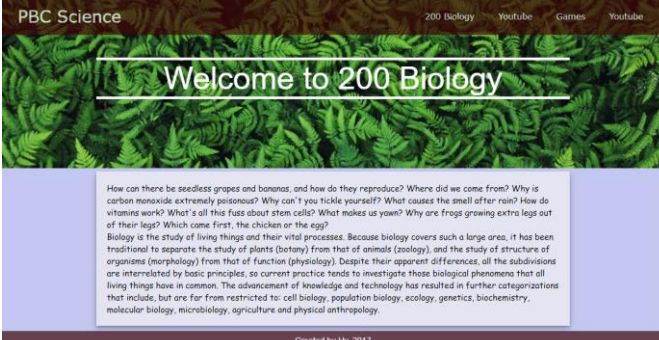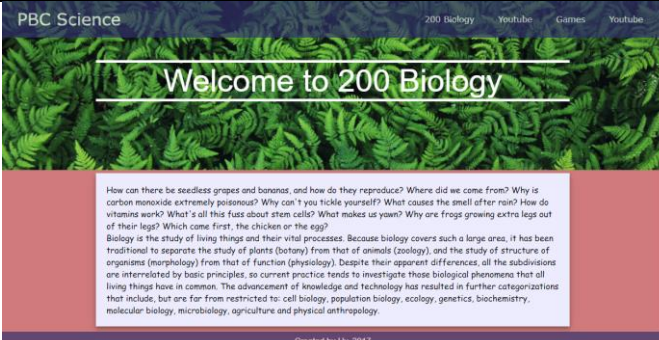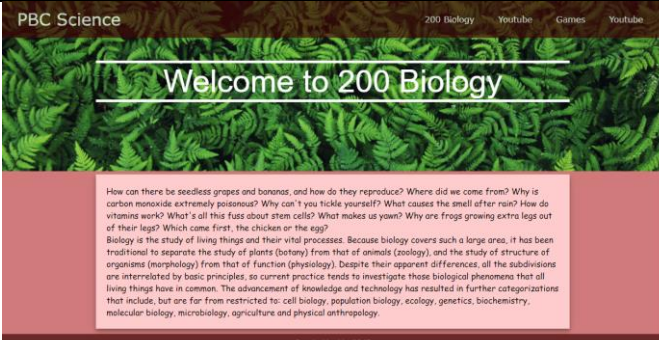Line 34, Column 1 — 34 Lines   INS   UTF-8 ▾   CSS ▾   ◯   Spaces: 4

Welcome To 200 Biology

How can there be seedless grapes and bananas, and how do they reproduce? Where did we come from? Why is carbon monoxide extremely poisonous? Why can't you tickle yourself? What causes the smell after rain? How do vitamins work? What's all this fuss about stem cells? What makes us yawn? Why are frogs growing extra legs out of their legs? Which came first, the chicken or the egg?

Biology is the study of living things and their vital processes. Because biology covers such a large area, it has been traditional to separate the study of plants (botany) from that of animals (zoology), and the study of structure of organisms (morphology) from that of function (physiology). Despite their apparent differences, all the subdivisions are interrelated by basic principles, so current practice tends to investigate those biological phenomena that all living things have in common. The advancement of knowledge and technology has resulted in further categorizations that include, but are far from restricted to: cell biology, population biology, ecology, genetics, biochemistry, molecular biology, microbiology, agriculture and physical anthropology.

Colour Palettes – Generated at http://kuler.adobe.com/

Colour Mock-Ups

The blue background gives a nice contrast from other contents, make the website look more professional, and give the users a calm vibe when using the website. But my client would like the colour to be either light blue or brighter blue. Overall, this going to be a good contender.

Red is not warm, but hot colour. It's hard to not notice a red design in a website. So red is often used for logos, buttons or a small section of the page. In this case, the red colour is alright as most of the background is located behind the body text section. But too much red colour might annoy users and turn them away. So, this choice is under consideration as the contents of each page might change, which might increase or decreases the visible background.

There is a good contrast established in his mock-up, but it hard for my client to see the text in the relatively dark red background for the body text. Also, the main background is too pink, which might not be gender neutral as male don't typically like the colour when they visit the website.

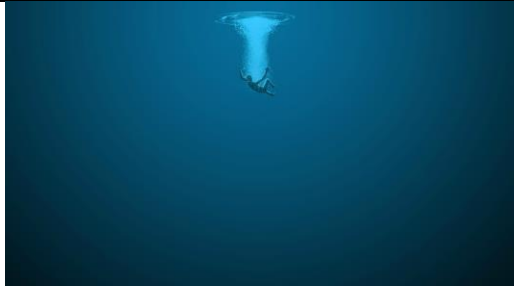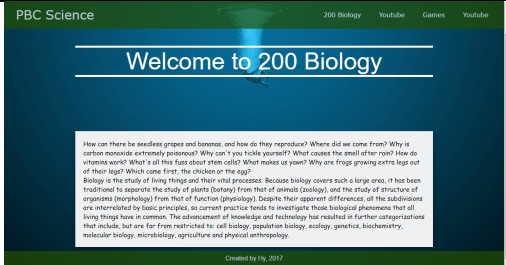|	
	The page contents really stand out in this background, as well as the brown navigation bar. Even though Brown isn't following the website colour schemes, but in biology, the student will learn about plants and life. So brown colour can associate with dirt and other material.
	This font is just like the one that I talk about earlier, with an exception of blue navigation bar. The blue and pink does improve the look of the page, but my client still doesn't like the pink colour as it's only associate with one gender only and will bother the other.
	This site, considered by my client, will only work well if this was aiming for women only. This is not suitable for a biology website and will not me develop further.
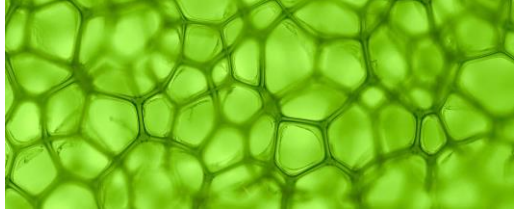
Conclusion:
My client has decided to choose this certain colour scheme as the result, even though more changes will be implemented in the future.
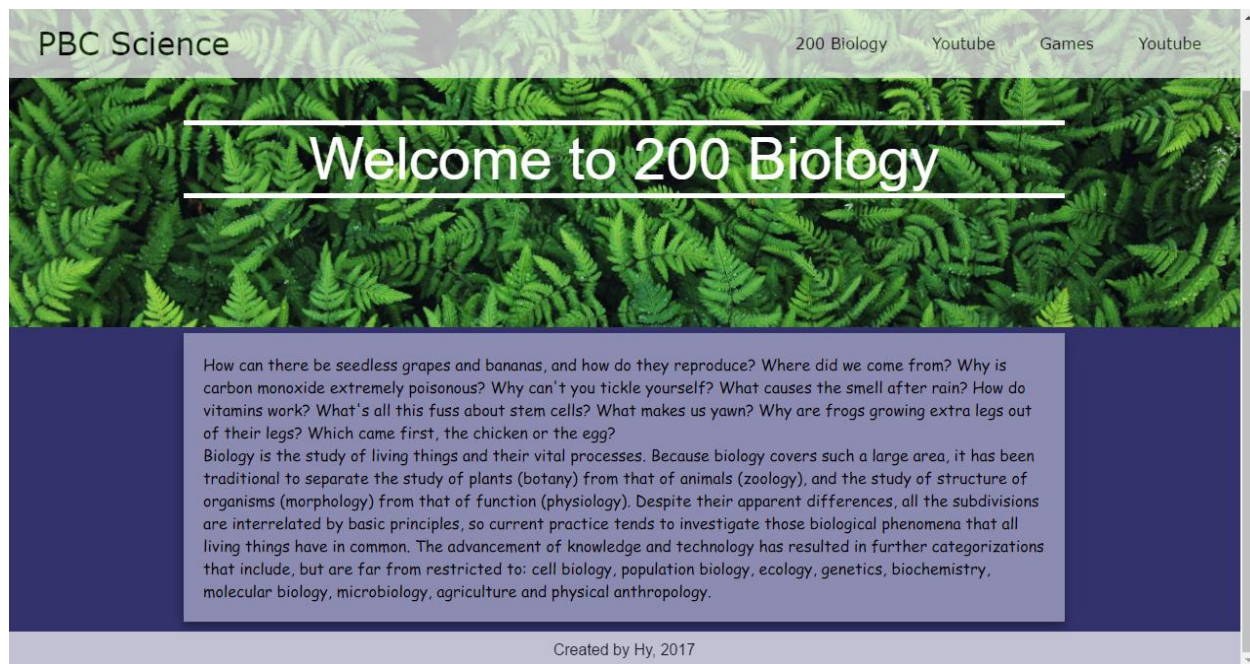
Backgrounds:

Background Only	Mock Up Thumbnail	Client Feedback
		My client like the green background as it stimulates balances and refreshing feeling when looking at the website. Also, the website will be a focus on plants and cells, to green would be suitable for the scheme.
		The combination of yellow and green is ok for the background but usually, the yellow colour is associated with warm and energizing so it often used for toys selling website.

	PBC Science 200 Biology Youtube Games Youtube **Welcome to 200 Biology** Created by Hy, 2017	My client quite like this cell background as it has a good contrast on the layouts, but there is more colour introduced into the website. But it's good to have an image about things related to what students will learn in class.
	PBC Science 200 Biology Youtube Games Youtube **Welcome to 200 Biology** Created by Hy, 2017	This is another background that my client like. The green colour is relaxing calming sensation to look at and since the background is about plant cells, it will let users know directly when they go on, the site is about biology study.
	PBC Science 200 Biology Youtube Games Youtube **Welcome to 200 Biology** Created by Hy, 2017	This background really separates itself from other contents in the page. Brown is associated with natural or organic things because people think of the earth and nature when they see it.
	PBC Science 200 Biology Youtube Games Youtube **Welcome to 200 Biology** Created by Hy, 2017	This background shows the calming and tranquil effect and darker shades of blue stimulate the mind into thinking more clearly when users visit. It also contrasts clearly form the rest of the site's contents.

This is the final choice from my client but more develops might be added in or the choice might change later on.

Welcome to 200 Biology

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